

AMENDMENTS TO THE SPECIFICATION

Paragraphs [0030], [0031], [0032], and [0037] have been amended as shown below. No new matter has been added to the specification.

[0030] The projectile of the present invention features a plurality of grooves, slits or other geometrical forms that extent longitudinally over the external face of the projectile, parallel to the central longitudinal axis of the projectile and symmetrically distributed around it. Said grooves or deformations are obtained by pressure forming, when the fore portion is partially closed in a die to form the generally conical or ogival shape of the fore portion of projectile.

[0031] The purpose of said plurality of grooves is to facilitate the opening of the projectile and avoid breaking. The number of grooves or slits preferably ranges from 3 to 9. The cross section of said grooves is preferably of a generally triangular shape, and their length is preferably superior to 5 % of the length of the internal cavity. The total cross sectional area of said grooves or slits ranges between 0.2 and 5% of the total cross sectional area of the projectile.

[0032] Said grooves or slits extend from near the front end of the projectile to a maximum length where the cross-section where is located the crimping or the case mouth. Let us remember that the bullet is mounted to a case containing propulsive powder and primer, being said case crimped to the bullet in order to hold it in place, and said crimping forming a generatrice on the cylindrical portion of the bullet. The grooves extend longitudinally from the front open end of the projectile to the generatrice where the case mouth is crimped.

[0037] The bullet of the present invention can be constructed following this general manufacture sequence:

a) Cutting of a proper cylinder blank, preferably by cutting, sawing or shearing a wire or rod of suitable material, such as copper or copper alloy.

b) Cold forming of a preliminary internal cavity centered on the longitudinal axis of said cylinder blank, were the geometry of said cavity is roughly equal to that of a cylinder in which the radius varies a little along certain portions of its length. Said preliminary internal cavity may or may not include a portion of pure cylindrical shape ($r = \text{constant}$), and the bottom of said cylinder may correspond to a section of a sphere (r progressively diminishing towards the bottom of the cavity) or a sheer plan surface (r abruptly made = 0). The shaping of the preliminary internal cavity is controlled by simply varying the values of (r, d) of the punch used in the cold forming according to the desired shape of the cavity. Said cold forming involves one or more strikes of suitable punches of single or progressive circular or polyhedral cross-section hitting the cylinder blank positioned in a die, totally or progressively creating a preliminary internal cavity without altering the external cylindrical shape of the metal piece. The punch strikes on the chosen end of the cylinder blank obtained on the previous cutting step creates a deformation axially symmetrical to the longitudinal axis of said cylinder blank, said obtained final deformation forming a preliminary internal cavity presenting a larger radius r toward the front end of the projectile where $d = 0$ is zero, with the radius r of said internal cavity varying preferably as:

- the maximum value of radius r of said internal cavity is situated where $d = 0$, ranging preferably from 95 % to 70% of the radius of said cylinder blank;

- With a cylindrical portion, situated between the front end and the bottom of the cavity, the length of said cylindrical portion ranging from zero to twice the diameter of said cylinder blank;

- The radius r of said internal cavity decreasing from where $d = 0$ to $d = \text{maximum}$ where the radius r ranges from 35% of the diameter of said cylinder blank to $r = 0$;

- The maximum value of d ranges from 0.50 to 2.5 times the diameter of said cylinder blank;

c) Formation of the external deformations of the form of grooves, preferably by pressure applied with the appropriate tool or die.

d) **Preliminary** shaping of the end of the ogival nose portion of the projectile, thus modifying the radius of the cavity obtained on step b above and reducing this radius by at least 7%;

e) modifying the shape of the preliminary internal cavity by displacement of the main diameter from the front end to a position between the front end and the bottom of the cavity;

f) Calibration of the caliber diameter, made by forcing the projectile through a cylindrical cavity tool;

g) Annealing to the suitable hardness, if necessary;

h) Application of a superficial finish such as polishing (preferably by trammeling), plating with a suitable material, covering (preferably by spraying or dipping in a suitable polymeric material), etc.

Those skilled in the art will realize that the operations encompassed on steps c) to h) can be performed using methods belonging to the current state of the art, and that the description of one or more of the preferential incorporations of the present invention does not limit its scope of application, which is in fact limited only by the set as defined in claims attached herein.